

REMARKS

New claim 31 has been added. Claims 16-31 are pending and under consideration.

Favorable reconsideration of this application, in light of the following discussion and in view of the present amendment, is respectfully requested.

Applicants have timely filed a Request for Continued Examination (RCE) along with this Amendment, including the filing fee as set forth in 37 CFR 1.17(e). Accordingly, Applicants respectfully request that the Examiner withdraw the finality of any Office action and enter this Amendment for consideration under 37 CFR 1.114.

I. Rejection under 35 U.S.C. § 102

In the Office Action, at pages 2-6, claims 16-30 were rejected under 35 USC § 102(e) as being anticipated by Witzel (U.S. Patent Application Pub. No. 20007/0171841). This rejection is respectfully traversed.

Witzel does not discuss or suggest:

checking in a radio network controller, upon receipt of a request from a switching unit relating to use of at least one subset of at least one codec mode configuration for establishment of a transcoder-free operation connection, whether the at least one requested subset is supported by the radio network controller;

and

if the at least one subset of the at least one codec mode configuration is supported by the radio network controller, establishing a transcoder-free operation connection to the switching unit and a communication terminal and restricting a codec mode configuration to be used for transmission of data to the subset,

as recited in claim 16.

In general, not all network terminals in a network will always support the same codec mode and, more importantly, the same codec mode configurations (a codec mode configuration being a set of codec modes based on which the two terminals can communicate). Therefore, the two or more terminals involved must agree on a codec mode configuration. This agreed on codec mode configuration provides a set of codecs on which the two or more terminals can potentially communicate. During a communication session, the two or more terminals will then effectively agree on a codec mode for communication. Depending on outside circumstances (for example, too much bandwidth being consumed on an air interface), the two or more terminals might change the codec mode for communication. However, this change can only occur within

the set of codec modes that were previously agreed upon (the agreed upon codec mode configuration). Thus, when a common codec mode configuration is available to all of the two or more terminals, transcoder-free operation (TrFO) or tandem free operation (TFO) is possible. Of course, if the two or more terminals do not have a common codec mode configuration that is supported by each of them, each of the terminals will choose a different codec mode configuration, making TrFO or TFO impossible.

Claim 16 provides for reducing the need for transcoding in a communication session between at least two terminals (for example, an originating terminal and a terminating terminal). To this end, claim 16 provides for establishing a transcoder-free operation connection between terminals at the radio network controller and not at each terminal or network node itself. Moreover, the radio network controller determines and establishes a transcoder-free operation connection based upon receipt of a request from a switching unit relating to use of at least one subset of at least one codec mode configuration. At least these features of claim 1 are not taught by Witzel.

As a non-limiting example, claim 16 provides a method as described in paragraph [0011] of the specification. The method provides for receiving, by a radio network controller (RNC), a request, from a switching unit, relating to the use of a subset (for example, a/b) of a codec mode configuration (for example, a/b/c). Next, the method provides for checking, by the radio network controller (RNC), whether the requested codecs a/b form a subset of a supported configuration (for example, a/b/c) and, if the subset is supported by the RNC, establishing a transcoder-free operation connection to the switching unit and a communication terminal. The RNC then signals to the switching unit that it is alright to go ahead with codecs a/b. However, to the terminal, via the air interface, the RNC can only signal a certain configuration a/b/c. This leads to a mismatch because the terminal is now allowed to use codec c, but the switching unit does not support codec c. Therefore, the method of claim 16 performs an additional step of restricting the codec mode configuration to the subset by signaling from the RNC to the terminal.

In contrast to claim 16, Witzel does not provide for a radio network controller to receive a request from a switching unit relating to use of at least one subset of at least one codec mode configuration and, as a result, does not provide for the radio network controller itself to establish a transcoder-free operation connection. To begin with, the Examiner has not indicated where Witzel discloses that the RNC (for example, RNC 40 in Fig. 7) receives a request from a switching unit relating to use of at least one subset of at least one codec mode configuration for establishment of a transcoder-free operation connection. Of course, this is likely because Witzel

does not teach establishment of a transcoder-free operation connection at the level of the RNC. Instead, Witzel discloses a node-by-node method of establishing a connection between an originating leg (for example, originating leg 41 in Fig. 7) and a terminating leg (for example, terminating leg 43 in Fig. 7), wherein each network node along a communication path must determine transcoding capabilities between each of the other network nodes. In fact, the example in Witzel clearly illustrates this inferior node-by-node method (see paragraph [0017] and Fig. 7). To begin with, the originating network node (MSC 45) must generate an initial supported codec list, where the direct codecs are determined by the intersection of the supported codecs of an originating mobile terminal 46 and the capabilities of the first originating network nodes 45 and 47. The transcoding capabilities are determined by a first originating MGW (media gateway) 47, according to a first originating codec list A1. A second originating network node 48 receives the initial supported codec list from the first origination network node 45. Thereafter, the transcoding capabilities are again determined according to a selected second originating MGW 49 (for example, according to a second terminating codec list A2). As such, each of the originating network nodes 45 and 48 in the originating leg 41 must receive supported codec lists from a previous node in order to determine the transcoding capabilities (for example, by MGWs 47 and 49). As such, each network node in Witzel agrees upon codec types or configurations, or both, that can be used for coding or decoding, or both, if at least one transcoding is implemented along the communication path. Therefore, each network node needs to analyze its current list of codec types or configuration, or both, prior to the communication and compare its list to the list of any other network node involved in the communication path. The procedure may lead to at least one transcoding step when a network node does not support a selected codec for the communication. More specifically, this situation may occur when using media gateways from different suppliers. Witzel does not disclose the use of the RNC 40 in establishing transcoder-free connection between the nodes of the originating leg 41 and the nodes of the terminating leg 43. Thus, it follows that Witzel also cannot teach signaling, from the radio network controller to the communication terminal, at least one message relating to the subset of the at least one codec mode configuration to be used for transmission of data, as also recited in claim 16.

Claim 16 eliminates the need for the node-by-node processing disclosed in Witzel by providing a method whereby the establishment of a transcoder-free operation connection is carried out at the radio network controller.

Since Witzel does not discuss or suggest all of the features of claim 16, claim 16 patentably distinguishes over Witzel. Accordingly, withdrawal of the § 102(e) rejection is respectfully requested.

Claims 17-24 and 31 depend either directly or indirectly from claim 16, and include all the features of claim 16, plus additional features that are not discussed or suggested by the reference relied upon. Therefore, claims 17-24 and 31 patentably distinguish over the reference relied upon for at least the reasons noted above. Accordingly, withdrawal of these § 102(e) rejections is respectfully requested.

Witzel does not discuss or suggest:

at least one processing unit checking a request sent from the switching unit relating to use of a subset of a codec mode configuration for establishment of a transcoder-free operation connection to determine whether the requested subset is supported by the radio network controller, establishing a transcoder-free operation connection to the switching unit if the subset of the codec mode configuration is supported by said radio network controller, restricting a codec mode configuration to be used for transmission of data to the subset, and signaling a message relating to the subset of the codec mode configuration to be used for the transmission of data via said send unit to a communication terminal included among the mobile network units,

as recited in claim 25, so that claim 25 patentably distinguishes over Witzel. Accordingly, withdrawal of the § 102(e) rejection is respectfully requested.

Claims 26-30 depend either directly or indirectly from claim 25, and include all the features of claim 25, plus additional features that are not discussed or suggested by the reference relied upon. Therefore, claims 26-30 patentably distinguish over the reference relied upon for at least the reasons noted above. Accordingly, withdrawal of these § 102(e) rejections is respectfully requested.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

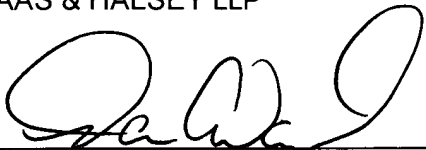
Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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